

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(s): Marc Moessinger CONF. NO. 1044

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TITLE: PARAMETERIZED SIGNAL CONDITIONING

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PRE-APPEAL BRIEF REQUEST FOR REVIEW

1. Claims 1-8, 11, 12, 17 and 18 are not anticipated by Muris et al. (US 5,781,559, "Muris") under 35 USC 102(b).

Muris fails to disclose or suggest a coupling unit as described in claim 1, in particular, a coupling unit:

comprising a first signal path that is adapted to provide a signal connection between at least one terminal of a first unit to be tested and at least one terminal of a second unit to be tested;

with said first signal path comprising a signal conditioning facility adapted for receiving a first signal from the first unit to be tested, for conditioning said first signal in accordance with predefined parameters, and for providing the conditioned first signal to the second unit to be tested;

said coupling unit further comprising a second signal path that is adapted to provide a signal connection between the at least one terminal of the second unit to be tested and the at least one terminal of the first unit to be tested; and

first switching facilities adapted for switching the signal path so as to select a signal of said first signal path or said second signal path.

Claim 1 is directed to an embodiment exemplified by Figure 8 of the present application. As described on page 26, line 23 through page 29, line 8, parameterized loop back testing is applied to bidirectional interfaces. As such, a coupling unit 800 provides a first signal path 832 for signal connection from a first unit to a second unit. The first signal path includes a signal conditioning facility adapted for receiving a first signal from the first unit to be tested, for conditioning the first signal in accordance with predefined parameters, and for providing the conditioned first signal to the second unit to be tested;

The coupling unit further includes a second signal path that is adapted to provide a signal connection between the at least one terminal of the second unit to be tested and the at least one terminal of the first unit to be tested. The coupling unit also includes switching facilities adapted for switching the signal path so as to select a signal of the first signal path or the second signal path.

In contrast, Muris, as shown in Figure 2 and as described in column 3, line 66 through column 4, line 34, is directed to providing a "testable circuit" that includes signal paths 20, 21, and 22 with two test circuits "I" and "II" on either side of signal path 21. Test circuit "I" includes a test control circuit 10 driving a shift register 25 and a switching unit 23. Column 4, lines 51-55 describe how the test control unit 10 controls switching unit 23 so that it applies a test signal from storage element 25 to input 21a of signal path 21. Test circuit "II" includes a test control circuit 12, a storage device 26, and a detector 28. Column 4, line 60 through column 5, line 10 describes how the output of signal path 21 is detected and stored in storage element 26 for inspection. Thus, test circuit "I" applies a signal to signal path 21 and test circuit "II" detects the resulting output. Applicants find no disclosure related to a coupling unit adapted to be coupled between a first and second unit to be tested.

From the Final Action mailed 1 November 2006, page 3, lines 2 and 3, the Examiner equates circuit "I" with a first unit to be tested and circuit "II" with the second unit to be tested. Applicants content that contrary to the Examiner's statements, circuit "I" is not

being tested but instead applies a test signal to signal path 21 and circuit “II” is also not being tested but instead records the response of signal path 21.

Assuming only for arguments sake that circuits “I” and “II” are first and second units to be tested, there is still no coupling unit which is adapted to be coupled between such first and second units to be tested. There is nothing in Muris related to a coupling unit that provides two different signal paths with different signal flow directions between the respective units to be tested, as required by the claim language of claim 1.

In the present Final Action on page 3, lines 7-11, the Examiner equates the second signal path of Applicants’ claim 1 to the “second signal path” of Muris’ claim 1. Applicants wish to point out that the “first and second signal path” mentioned in the first line of column 8 of claim 1 of Muris clearly refers to signal paths 20 and 21 of Figure 2, and that there is no disclosure anywhere that signal path 21 provides a signal connection between at least one terminal of the second unit to be tested and at least one terminal of the first unit to be tested.

Applicants also note that the Examiner equates the coupler of Applicants’ claim 1 with switch 23 of Muris. The coupler of claim 1 includes switching facilities arranged to switch between the two oppositely directed first and second signal paths of the coupling unit. This is clearly not the case in Muris because the switch 23 shown therein switches the output of shift register 25 to 21a on the one hand and switches the output of signal path 20 to 21a on the other hand. In addition, the coupling unit of claim 1 provides the first and second signal paths between the first and second units to be tested. In contrast, switch 23 provides a signal path between shift register 25 and 21a or between signal path 20 and 21a. Switch 23 does not provide first and second signal paths between first and second units to be tested.

At least for these reasons, Applicants submit that Muris does not anticipate independent claim 1 and dependent claims 2-8, 11, 12, 17, and 18.

2. Applicants respectfully submit that claims 9, 10, 13-15, 19 and 20-26 are patentable over Muris under 35 USC 103(a).

Claims 9, 10, 13-15, 19, and 20 depend from claim 1.

For all the reasons argued above, Muris fails to disclose or suggest the coupling unit as described by claim 1. Therefore, claims 9, 10, 13-15, 19 and 20 are patentable over Muris.

Muris also fails to disclose or suggest a method for testing operation of at least one of a first and a second unit to be tested, including receiving a first signal from the first unit to be tested, conditioning the first signal in accordance with predefined parameters, whereby the first signal's information content is preserved, providing the conditioned first signal as an input signal to the second unit to be tested, receiving a second signal from the second unit to be tested, conditioning the second signal in accordance with predefined parameters, and providing the conditioned second signal as a second input signal to the first unit to be tested, as recited by claim 21.


Muris has no disclosure that even suggests conditioning the first signal in accordance with predefined parameters, whereby the first signal's information content is preserved. There is also no disclosure in Muris related to the other features of claim 21, in particular to providing the conditioned first signal as an input signal to the second unit to be tested, receiving a second signal from the second unit to be tested, conditioning the second signal in accordance with predefined parameters, and providing the conditioned second signal as a second input signal to the first unit to be tested

Claims 22-26 depend from claim 21 and therefore claims 21-26 are also patentable over Muris.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,


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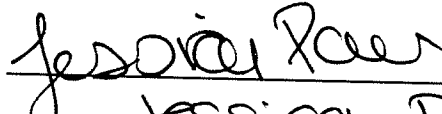
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